

processes and techniques of Navajo weaving, with a special emphasis on advanced weaving techniques and design.

ARTS-251 Beginning Painting 3 cr.
Painting in various traditional and non-traditional media. Pursuing individual expression through painting techniques in relation to a broad scope of art concepts and styles. Semester offered: Fall and Spring.

ARTS-252 Painting II 3 cr.
Continuation of ARTS 251. Prerequisite: ARTS 251. Semester offered: Fall and Spring.

ARTS-253 Painting III 3 cr.
Continuation of ARTS 252. Prerequisite: ARTS 252. Semester offered: Fall and Spring.

ARTS-254 Painting IV 3 cr.
Continuation of ARTS 253. Prerequisite: ARTS 253. Semester offered: Fall and Spring.

ARTS-265 Beginning Sculpture I 3 cr.
An introduction to sculpture and methods and materials using stone and wood carving, clay, and various modeling techniques. Semester offered: On Demand.

ARTS-266 Sculpture II 3 cr.
Continuation of ARTS 265. Prerequisite: ARTS 265. Semester offered: On Demand.

ARTS-267 Metal Sculpture 3 cr.
Advanced ornamental welding procedures, equipment, and terminology used in the industry. Welding equipment and safety will be addressed. This course will also provide students with advanced knowledge and hands-on experience to perform techniques and applications as applied to metal sculpture using oxy/acetylene, gas metal arc, and gas tungsten arc welding equipment. Cross-listed as WELD-267. Semester offered: Fall and Spring.

ARTS-268 Sculpture III 3 cr.
This course will focus on the development of the student's personal aesthetic while continuing to analyze the use of form and surface to create content. Critiques will help the student understand how sculpture communicates ideas in a visual context. Developing a body of work and documentation for a portfolio are topics that will be covered. Prerequisites: ARTS 265 and ARTS 266. Semester offered: Fall and Spring.

ARTS-275 Pottery and Clay Arts I 3 cr.
Introduction to clay arts including techniques of hand building, wheel throwing, and glazing. Semester offered: Fall and Spring.

ARTS-276 Pottery and Clay Arts II 3 cr.
Continuation of ARTS 275. Prerequisite: ARTS 275. Semester offered: Fall and Spring.

ARTS-283 Pottery and Clay Arts III 3 cr.
Continuation of pottery and clay techniques for the advanced pottery student. Focus will be on production pottery and development of personal style. Prerequisite: ARTS 276. Semester offered: Fall and Spring.

ASTRONOMY

ASTR-110 Intro to Astronomy 4 cr.
Observation, theories, and methods of modern astronomy. General study for non-science majors. Prerequisite: High school chemistry or physics or PHYS 111. Semester offered: Fall and Spring. [NM Common Course Number ASTR 1114, Area III; Laboratory Science Core]

ASTR-111 Intro to Space Science 4 cr.
An introduction to the principles of space exploration. Investigates the forces which control the nature of the interiors, surfaces, and atmospheres of the planets. Describes the role of solar heating in the energy balance of planetary atmospheres, and defines the conditions necessary for life. Theories of the origin and evolution of the solar system are discussed. Prerequisite: MATH 096. Semester offered: On Demand.

ASTR-113 Constellation Mythology 3 cr.
A study of the ancient mythological stories and philosophies of world cultures as seen in the patterns of stars in the night sky. A basic grounding in Greco-Roman myths and representations of star patterns will be compared to other world cultures, including, but not limited to, Native American, Chinese, Arabic, South Pacific, and Arctic. Semester Offered.

ASTR-120 Deep Space Astronomy 3 cr.
Conceptual study of cosmology and relativity, emphasizing the Einsteinian perceptions of gravity, matter, energy, and space-time geometry. Also examines in detail anomalous subjects such as black holes, wormholes, "white fountains", and obstacles to superluminal ("faster than light") travel. Prerequisite: ASTR 110. Semester Offered: Spring.

AUTOMOTIVE SERVICE EDUCATIONAL PROGRAM

ASEP-110 Shop Fundamentals and Safety 1 cr.
This course will orient the student to shop operations, use of service manuals, pay structures, tools, warranties, and customer relations. Shop safety will be strongly emphasized as well as employee/employer relations. Corequisite: ASEP 120. Semester offered: Fall.

ASEP-120 Gm Electrical and Ignition Syst. 7 cr.
A study of the electrical and electronic systems found in the automotive field. Emphasis is on basic circuitry, starting systems, charging systems, ignition systems, diagnosis and servicing the electrical components on current GM model vehicles. Corequisite: ASEP 110. Semester offered: Fall.

ASEP-130 GM Fuel and Emission Syst. 4 cr.
A study of the fuel and emission systems used on current GM model vehicles. Students will learn to use the exhaust gas analyzer, oscilloscopes, and other special equipment. Prerequisite: ASEP 120. Corequisite: ASEP 140. Prerequisite: ASEP 280. Semester offered: Spring.

ASEP-140 GM Drivability 4 cr.
A systematic troubleshooting method for General Motors fuel, electrical and electronic systems. Use of tools and equipment needed for

proper diagnosis emphasized. Corequisite: ASEP 130. Prerequisite: ASEP 280. Semester offered: Spring.

ASEP-145 ASE Tests 1 cr.
Students must be signed up for a minimum of two ASE exams and pass one. Semester offered: Spring.

ASEP-146 ASE Tests 1 cr.
Take and pass remaining ASE exams. Students are required to pass a minimum of four ASE exams in order to receive credit and graduate. Any tests passed in ASEP 145 are counted as part of the requirement. Prerequisite: ASEP 145. Semester offered: Spring.

ASEP-150 GM Engines and Related System 4 cr.
This course covers the principles and operation of the internal combustion engine. Engines will be properly disassembled for component identification. All parts will be inspected, measured, and reassembled. The oiling and cooling system will also be covered. Corequisite: ASEP 160. Prerequisite: ASEP 281. Semester offered: Summer.

ASEP-160 GM Heating and Air Conditioning 2 cr.
A theory and shop course to teach the student GM heating, air conditioning systems, and controls. The student will learn to diagnose and recover refrigerant, evacuate, and recharge air conditioning systems. Corequisite: ASEP 150. Prerequisite: ASEP 281. Semester offered: Summer.

ASEP-170 GM Power Trains 8 cr.
The theory and practical application of automotive power trains, including clutches, transmissions, drive lines, transaxles and differential service will be taught. Diagnosis, troubleshooting and actual repair procedures will be performed on General Motors vehicles in the shop. Prerequisite: ASEP 160, ASEP 282. Semester offered: Fall.

ASEP-180 GM Brake Systems 4 cr.
A study of the theory, diagnosis and repair procedures of General Motors disc and drum brake systems will be taught. Instruction will be given on brake machining equipment, hydraulic systems and component replacement on traditional and anti-lock brake systems. Prerequisite: ASEP 170, ASEP 283. Corequisite: ASEP 190. Semester offered: Spring.

ASEP-190 GM Steering and Suspension 4 cr.
A theory and shop course to introduce the student to steering geometry, front and rear suspension service, wheel alignment, and wheel balancing. Lab work will include instruction on the latest GM vehicles' steering and suspension systems. Corequisite ASEP 180. Prerequisite: ASEP 283. Semester offered: Spring.

ASEP-280 GM Cooperative Work Education 4 cr.
The student will be employed at an approved General Motors automotive repair facility which will provide relevant learning experiences that are directly related to the student's most recent classroom/laboratory experiences. Daily logs and weekly reports MUST be submitted once per week. The student will be supervised and evaluated jointly by his/her employer and San Juan College personnel. Prerequisite: ASEP 120.

ASEP-281 GM Cooperative Work Education 4 cr.
The student will be employed at an approved General Motors automotive

repair facility which will provide relevant learning experiences that are directly related to the student's most recent classroom/laboratory experiences. Daily logs and weekly reports MUST be submitted once per week. The student will be supervised and evaluated jointly by his/her employer and San Juan College personnel. Prerequisite: ASEP 140.

ASEP-282 GM Cooperative Work Education 4 cr.
The student will be employed at an approved General Motors automotive repair facility which will provide relevant learning experiences that are directly related to the student's most recent classroom/laboratory experiences. Daily logs and weekly reports MUST be submitted once per week. The student will be supervised and evaluated jointly by his/her employer and San Juan College personnel. Prerequisite: ASEP 160.

ASEP-283 GM Cooperative Work Education 4 cr.
The student will be employed at an approved General Motors automotive repair facility which will provide relevant learning experiences that are directly related to the student's most recent classroom/laboratory experiences. Daily logs and weekly report MUST be submitted once per week. The student will be supervised and evaluated jointly by his/her employer and San Juan College personnel. Prerequisite: ASEP 170.

AUTO BODY

AUBO-110 Intro to Auto Body I 9 cr.
This course is a prerequisite to all auto body courses. Students will receive instruction in safety, hand tools, basic body shop equipment, oxy-acetylene, MIG welding, and basic panel alignment. Corequisite AUBO 115. Semester offered: Fall and Spring.

AUBO-113 Basic Electrical 9 cr.
Students will receive instruction in safety, body shop power tools, refinishing equipment, and basic auto body repair. Corequisite AUBO 110. Semester offered: Fall and Spring.

AUBO-120 Auto Body Electrical 4 cr.
This will consist of the theory of electricity and solid state electronics with emphasis on Ohm's Law. Meters, schematics, trouble shooting techniques, basic start, battery, and charging system tests will be covered. Semester offered: - Fall and Spring.

AUBO-125 Collision Repair 9 cr.
This course will involve the student in all phases of minor collision repair: sheet metal repair, body panel replacement, and help develop good, safe work habits for the student. Prerequisite: AUBO 115. Semester offered: Fall and Spring.

AUBO-135 Automotive Refinishing 9 cr.
Includes all phases of surface preparation and refinishing. Students will receive instruction on a variety of refinishing problems. The student will also be instructed on safe work habits, using base coat/clear coat systems. Prerequisite or corequisite AUBO 125. Semester offered: Fall and Spring.

AUBO-235 Advanced Auto Body Repair I 9 cr.
This course will involve the student in all phases of major collision repair.